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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/995,821	11/29/2001	Serge Goiffon	034299-371	9744

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EXAMINER

TO, JENNIFER N

ART UNIT	PAPER NUMBER
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2195

DATE MAILED: 07/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

8

Office Action Summary

Application No.

09/995,821

Applicant(s)

GOIFFON, SERGE

Examiner

Jennifer N. To

Art Unit

2195

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-13 are pending for examination.
2. The disclosure is objected to because of the following informalities: page 14 of the specification is objected to because if these references are required to make the invention work, applicant is required to put the cited references at the beginning of the specification with explanation of their relevancy to applicant invention. If these are prior art that need to be considered by examiner, applicant is required to put this information in IDS and copy of the reference is required to insure proper consideration and to the extent required by 37 CFR 1.56.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter in which the applicant regards as his invention.
4. Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
 - a. The claim language in the following claims is not clearly understood:
 - i. as per claim 1, lines 1-2, it is not clearly understood what is meant by "a set of fixed adjustable duration observation windows" (i.e. observation windows are fixed or adjustable). Lines 7-8, what is meant by

“a scheduler guarantees a minimum execution time”, it is not clearly understood how a minimum execution time being define.

ii. as per claims 3, 7, and 11, term “rerouting” in this claim did not give a meaning repugnant to the usual meaning of the term. (i.e. “rerouting” is used by the claim to mean “reallocate”).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baker-Harvey (U.S. Patent No. 6385638).

7. Baker-Harvey was cited in the last office action.

8. As per claim 1, Baker-Harvey teaches the invention substantially as claimed including real time multi-task operating process (fig. 1) in which a set of fixed adjustable duration observation windows (fig. 2; col. 4, lines 35-36) are defined, said process including:

an allocation stage, in each observation window, of a maximum execution duration for each task, during which a scheduler guarantees a minimum execution time for lower priority tasks (fig. 2; col. 1, lines 45-46; col. 2, lines 14-15; col. 5, lines 1-10);

a calculation stage for the time used by each task during each observation window (col. 6, lines 47-49); and

a sanction stage during which the tasks which exceed their quota in a given observation window are sanctioned and can only return to a central resource unit during the following observation window (col. 11, lines 11-13).

9. Baker-Harvey did not specifically teach a scheduler guarantees a minimum execution time for the lower priority tasks. However, Baker-Harvey disclosed a method that guarantees each task will always be able to run at least its minimum quality of service or its own defined minimum times (abstract, lines 7-9; col. 2, lines 19-21).

10. It would have been obvious to one of an ordinary skill in the art at the time the invention was made to have recognized that the step of guarantees defined minimum execution time for the tasks in Baker-Harvey's system could include a guarantee for a low priority task because this will improve the versatility of Baker-Harvey's system by having priority as a factor for guarantee execution time.

11. As per claim 2, Baker-Harvey teaches the invention substantially as claimed in claimed 1, in which during the calculation stage a value supplied by a global software

Art Unit: 2195

counter is used, said value being refined by adding to it the time passed since a last clock pulse read at one go in a material counter (tables 2, and 3).

12. As per claim 3, Baker-Harvey further teaches that a first rerouting point existing in a scheduling code (col. 8, lines 23-25), a second rerouting point existing in a clock pulse process interruption program (col. 8, lines 34-35); said program, with a higher priority than all system tasks enabling the calculation of the time spent by the task in progress (col. 11, lines 57-58) and to sanction it if its quota is exceeded (col. 12, lines 63-65).

13. As per claim 4, Baker-Harvey further teaches the sanction stage takes place during a task change (col. 8, lines 27-29).

14. As per claim 5, Baker-Harvey further teaches the sanction stage takes place during the generation of a clock pulse (col. 8, line 27, and 30-31).

15. As per claim 6, Baker-Harvey further teaches the sanction stage consists of a reduction in task priority (col. 18, lines 58-63), a stoppage or destruction of the task (col. 3, lines 25-29).

16. As per claim 7, Baker-Harvey further teaches a start-up in which: a plurality of rerouting procedures are started (col. 5, lines 58-60); a supervision task is launched

(col. 7, lines 44-45, lines 60-62); and the duration of the observation window is configured (col. 5, lines 60-62).

17. As per claim 8, Baker- Harvey further teaches:

during a creation of a first task: the maximum use duration of the central resource unit in the observation window (col. 7, lines 54-57) and the sanction to be applied in event of overshoot is configured (col. 8, lines 27-31), surveillance of this first task is launched (col. 8, lines 18-22);

during the termination of this first task; and the surveillance of said first task is inhibited (col. 8, lines 46-48);

during switching of this first task to another task: event is dated (table 3), starting time of said another task is recorded (table 3); the time spent by the first task during the observation window is calculated (table 3); and a sanction is applied if the time spent by the first task is longer than the maximum allocated time (col. 8, lines 27, and 29-30).

18. As per claim 9, Baker-Harvey further teaches a sanction is applied if the time spent is longer than the maximum allocated time (col. 8, lines 27, and 29-30).

19. As per claim 10, Baker-Harvey further teaches at the beginning of the window the time spent for the tasks is put at zero (table 2), at the end of the window the sanctioned tasks are rehabilitated (col. 8, lines 57-61).

20. As per claim 11, Baker-Harvey teaches the invention substantially as claimed including a surveillance module which contains the code of a rerouting procedure for putting in place rerouting points (col. 1, lines 51-52), a functions interface accessible by a supervision task (col. 3, lines 31-34), a time management unit (col. 2, lines 1-8), and a scheduler (col. 1, line 59).

21. Claims 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baker-Harvey (U.S. Patent No. 6385638), as applied to claims 1 and 10 above, in view of Delseny et al. (U.S. Patent No. 6275767).

22. Delseny was cited in the last office action.

23. As per claims 12-13, Baker-Harvey teaches the invention substantially as claimed in claim 1. However, Baker-Harvey did not specifically teach ATSU calculator. Delseny teaches the use of the process of the ATSU calculator (abstract, lines 1-12; col. 4, lines 22, 55-59).

24. It would have been obvious to one of an ordinary skill in the art at the time the invention was made to have combined the teaching of Baker-Harvey, and Delseny because Delseny 's ATSU calculator would expand the usage of Barker-Harvey's system to manage links between certain aircraft equipment and the ground/board communication means (abstract, lines 1-4).

Response to Arguments

25. Applicant's arguments filed 06/21/2005 have been fully considered but they are not persuasive.

26. In the remarks applicant argued:

(1) It is unclear from the figure or the specification whether the observation windows of Baker-Harvey are adjustable.

(2) It is unclear how the fixed adjustable duration observation windows are illustrated in fig. 2.

(3) Baker-Harvey fails to teach a minimum execution time for lower priority tasks.

(4) Baker-Harvey fails to teach an allocation stage, in each observation window, of a maximum execution duration for each task.

(5) Baker-Harvey fails to teach the allocation stage, calculation stage, or sanction stage.

(6) Baker-Harvey fails to teach a surveillance module enables an adjustable surveillance and sends information on the status of the tasks, enables dating events, control the use of central resource unit, and a sanction, and receives IT interrupts of the software counter for the start of each observation windows.

(7) Baker-Harvey fails to teach the code for a rerouting procedure for putting in place rerouting points.

27. Examiner respectfully traverses Applicant's remarks:

- a. As to point (1), from the fig. 2, it is clearly shown that at each observation window (bounded by two bold vertical bars), time allocated to each task are dynamically change.
- b. As to point (2), form fig. 2, it is clearly shown that every observation window is fixed with 10ms, each task is allocated with its minimum execution time, for example, at the first period, first task allocated with block 1, second task with 2-8, and third task with blocks 9-10; at the second period, first task allocated with block 1, second task allocated with bocks 4-10, and third task with blocks 2-3 (i.e. each block is 10ms, and number in order 1-10).
- c. As to point (3), see paragraphs 8 and 9. The rejection was base on obviousness, in which one of an ordinary skill in the art at the time the invention was made to have recognized that by guarantee each task will be able to run at least its own defined minimum times could include a guarantee for a low priority task.
- d. As to point (4), Baker-Harvey teaches an allocation stage, in each observation window, of a maximum execution duration for each task (fig. 2; col.1, lines 45-46; col. 2, lines 14-15; col. 2. lines 14-15).
- e. As to point (5), Baker-Harvey teaches the allocation stage, calculation stage, or sanction stage (col. 5, lines 1-10; col. 6, lines 17-49; col. 11, lines 11-14).
- f. As to point (6), this limitation is not found in the claim. Claimed subject matter, not the specification, is the measure of invention. Limitations in the

specification cannot be read into the claims for the purpose of avoiding the prior art. In re Self, 213 USPQ 1,5 (CCPA 1982); In re Priest, 199 USPQ 11, 15 (CCPA 1978).

g. As to point (7), Baker-Harvey teaches the code for a rerouting procedure for putting in place rerouting points (col. 5, lines 42-46).

28. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

29. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer N. To whose telephone number is (571) 272-7212. The examiner can normally be reached on M-T 7AM- 4:30 PM, F 7AM- 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jennifer N To
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